



# AgConnections

AGRICULTURAL SAFETY AND HEALTH

Vol. 2, No. 3

## AHEC is a Natural Partner

By Steven R. Shelton  
Executive Director, East Texas AHEC

The NIOSH-funded centers have a natural partner in their local area health education center (AHEC) operation. Now covering 47 states, with almost 190 regional operations serving a designated geographic service area, AHEC can be a strong ally for the agricultural centers. While originally formed over thirty years ago by the USDHHS to address health workforce issues, many AHECs also engage in a wider range of community health, health literacy, and safety issues.

Rural health issues such as access and availability to medical, dental, and mental health care drive the basic program plan of many AHECs with rural constituencies. Urban centers with their more concentrated population are typically more selective to prevent being overwhelmed by sheer numbers. Predominantly rural AHECs often focus attention on recruitment and retention of health professionals to serve their communities. This effort includes informing their local physicians, dentists, nurses, and others through continuing education of important patient care principles designed to improve their efficiency and effectiveness as caregivers. This includes critical information generated by NIOSH center work on behalf of rural workers and families. Regional AHEC operations usually have the latitude to work within a regional needs assessment, and are capable of seeking and using funds from a variety of federal, state, and private sources. AHECs

## NIOSH Agricultural Research Centers Update

### Agricultural Education and Outreach at the Southeast Center

From tractor safety initiatives, to nurse education programs, to efforts that increase health education and access among Hispanic farm workers and their families, the research and community outreach projects at the University of Kentucky's Southeast Center (SE Center) have one element in common. All have at their core educational efforts to improve agricultural health and prevent agricultural injury.

The Southeast Center's Kentucky tractor safety initiative, directed by Henry Cole, EdD, Professor of Preventive Medicine, involves the community in experimental trials to promote use of ROPS and seatbelts among farmers, measures that would eliminate nearly all tractor-related injuries and fatalities. Dr. Cole and colleagues created an array of tractor and farm safety messages and materials. Community participation in the development, implementation, and evaluation of program materials, yielded local acceptance and resulted in a statistically significant increase in the number of ROPS-equipped tractors. The program materials and methods have been disseminated to other counties in Kentucky and across the nation to increase awareness about the risks of tractor-related injuries and their prevention. These materials are also being incorporated into high school, college, and university classrooms as part of outreach efforts to educate students and professionals about agricultural safety.

Another Center project, directed by Deborah Reed, PhD, at the University of Kentucky College of Nursing, provides training about agricultural occupational health for nurses throughout the south and southeast United States. Dr. Reed has also worked to incorporate education on the health

and care of agricultural populations into the curricula of nursing colleges across the country.

Under my direction, the SE Center developed an outreach program to increase access to health care and health education by Hispanic farm workers and their families. These efforts are directed toward the target population, county health department workers, and other providers who deliver health care to this special, underserved population. The collaborating partners include rural county public health workers, county agricultural

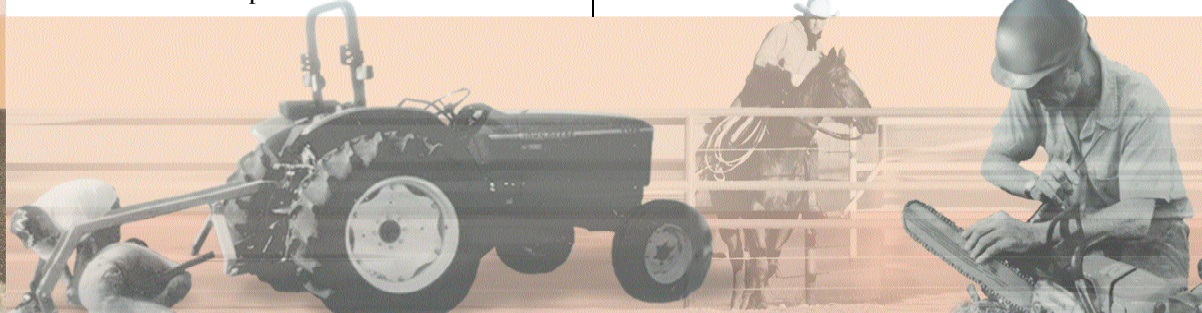
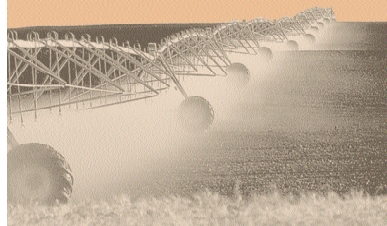
extension agents, local farmwomen and other concerned community groups. Educational activities to support the outreach efforts focus on Hispanic culture, workers' rights to health care, and special needs that affect the health of migrant and resident Hispanic farm workers.

Much of the knowledge and experience gained from these outreach and educational activities have been synthesized into a new graduate/professional-level course — *The Health of Agricultural Populations* — offered by University of Kentucky College of Public Health. Students enrolled in the MPH, DrPH, and PhD programs at the College can take this course as part of trans-departmental studies in agricultural health and safety. In 2005, the College will initiate a certificate program that focuses on agricultural populations, their culture, history, lifestyles, health and injury risks, in addition to health promotion and injury prevention. By incorporating this content into advanced studies at the College of Public Health, the Southeast Center is helping ensure that the next generation of agricultural health professionals has the training to serve farmers, farm families, farmworkers and their communities.



Robert McKnight  
MPH, Sc.D.  
Center Director

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## Agricultural Health and Safety Curriculum Evaluation

*Robert Seitz, Ph.D., HICAHS*

The agriculture industry annually employs about 667,000 young workers. In addition, many more young people are also exposed in varying degrees to the hazardous agricultural environment. Knowledge about the environmental and occupational hazards encountered on farms/ranches is critical to the safety and well-being of these youth.

The project is in the 4<sup>th</sup> year of a 5-year study using an experimental design with a qualitative component to evaluate a computer-based agriculture health and safety curriculum being taught in rural Colorado and Wyoming high school agricultural classes. The CD based curriculum was designed to match targeted students' developmental stage and a needs assessment of area agricultural educators.

The specific purposes of the study are to evaluate changes in students' knowledge, attitudes and practices regarding agricultural and work-related safety behaviors and track changes in incidences of agriculture-related injuries and illnesses that may be due to the inclusion of the CD-based curriculum into existing school curricula. Results to date support both significant knowledge gains and knowledge retention in the study group compared to the control group. Data collection and analysis are continuing on the other study variables.

## Teaching Pesticide Issues in the Northwest PNASH Center

During the last two years, the Pacific Northwest Agricultural Safety and Health Center (PNASH) has conducted a series of pesticide-related courses for growers, workers, health care providers, and safety professionals in the Northwest. These stakeholders need the best and latest information in order to comply with recent Washington state legislation that requires pesticide exposure monitoring for farm workers. California is the only other state to mandate such measures.

In 2003 and 2004, PNASH partnered with Washington State University to offer annual Pesticide Issues Conferences. Each event drew more than 100 participants and provided information on the new regulations, cholinesterase monitoring, pesticide drift, pesticide toxicity and exposure in general.

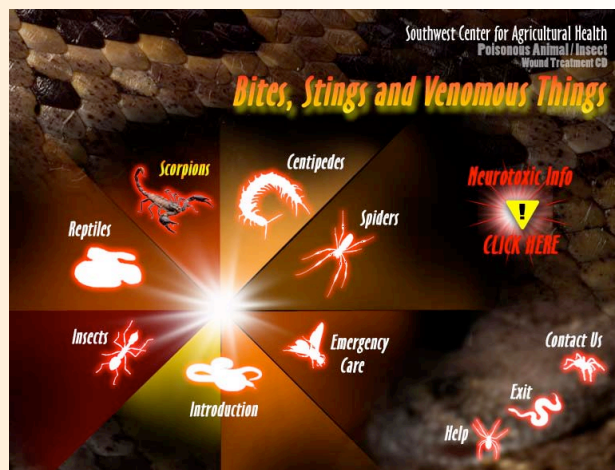
The PNASH Center has also offered on-site short courses for health care providers to accommodate their schedules. These courses provide a valuable service to the community by training rural and farm worker clinic staff in pesticide toxicity/illness, the new regulations, and how to serve as medical monitors for the farm workers participating in the program. They have been well received. PNASH collaborated with the Washington state departments of Labor and Industries and Health in offering the courses.

Continuing education credits were awarded in medicine, nursing, industrial hygiene and safety, and for pesticide applicator recertification. Course manuals and other materials are available by e-mailing PNASH@u.washington.edu or calling (800) 330-0827.

## Bites, Stings and Venomous Things

*Paul Risk, Ph.D., Southwest Center*

Two SW Center sponsored projects – one investigating injuries among loggers, the other documenting West Texas farm women's safety concerns for their children – each highlighted poisonous snakebite, first aid, and after care as significant concerns. All five species of poisonous snakes native to the U.S. can be found in Texas along with other creatures that can inflict dangerous and sometimes fatal bites or stings. A CD is in development that will serve as a reference and educational tool for a variety of audiences. In addition to photos, content includes habitat information, bite/sting prevention measures, field first aid, and after care recommendations. Visit the SW Center website: <http://www.swagcenter.org> for updates.





## Effective Loss Control Programming

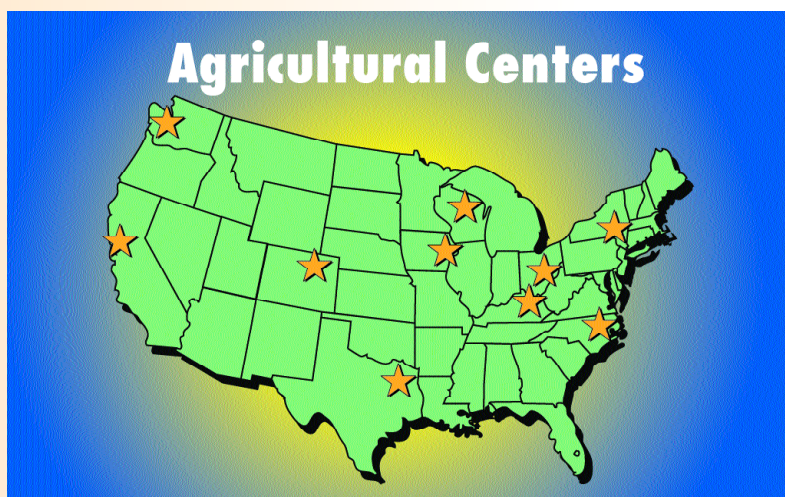
### Northeast Center

The Northeast Center's Agricultural Hazard Abatement and Training (AHAT) Program is a real-life application of a NIOSH-funded Cornell University research project. Although, the transition from research to the "real world" has revealed a number of challenges, progress is noteworthy. Presently, more than 200 farms that are part of a self-insured workers' compensation group voluntarily participate in the program in New York, Pennsylvania, and Vermont. Since its inception: 187 farms have been assessed for hazards; 81 farm owner seminars have been conducted; and 1,083 safety training sessions have been reported with a total of 5,328 workers trained. Some of the safety topics presented are: equipment/skid steer/tractor operation; animal handling; road safety; and chemical handling. Farm owners are also voluntarily correcting identified hazards such as: missing or damaged PTO shields, SMV emblems, and guards on equipment.

An analysis of workers' compensation claims filed by 50 farms in the program indicates a decrease in frequency of claims filed (94 claims in 1999 compared to 60 in 2002) and an overall decrease in loss ratios from 51.7% in 1999 to 40.2% in 2002.

The insurance company is considering making participation in the AHAT program mandatory for its farm clients due to success of the voluntary program and rising costs of workers' compensation claims.

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(607)255-1597.



## Agricultural Safety & Health Education & Outreach

### Great Plains Center

Safety and health programs at The University of Iowa started in 1955 with the formation of The Institute of Agricultural Medicine, and have been going strong ever since. Training in Agricultural Safety and Health was begun in 1973, when Dr. Kelley Donham was recruited to the Institute to develop the first teaching program in agricultural safety and health.

#### Programs now fall into three categories:

**Intense short course:** taught every spring in two 2-day sessions. Over 250 physicians, physician's assistants, nurses and other professionals have completed this program and gone back to their communities to provide services for farmers and their families.

#### Regular college classes:

These classes are available for graduate credit and are offered as part of the regular curriculum. Content includes  
Rural Health and Agricultural Medicine  
Agricultural Safety: Theories and Practice  
Current Topics in Agricultural Health

**Complete MS and PhD program** - is a rigorous course of study and research for the serious student who wants to pursue a career as an agricultural safety and health professional.

For additional information visit <http://www.public-health.uiowa.edu/heartland/ASHprogram.htm> and prevent injuries and disease among the agricultural worker population.

On Sept. 12-14, the **Pacific Northwest Center** (PNASH) played host to a seminal conference: "Cultivating the Sustainable Agricultural Workplace." Co-sponsored by the Western Center, NIOSH-CDC, and others, the event drew 110 participants from a wide range of constituencies, including growers and farmworker advocates. The event is believed to be the first to so extensively link sustainable agriculture and worker health and safety. Proceedings will be available online at the PNASH Web site in November: <http://depts.washington.edu/pnash/>

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also have affiliations with a wide range of academic and health industry partners, as well as a variety of community-based organizations with health interests.

In East Texas, AHEC collaboration with the Southwest Center has led to activities with migrant workers, the forest industries, Gulf coastal fishery, and rural kids through farm safety programs, as four general examples of the potential centers have to work with AHEC as a partner. Your local AHEC operation may be identified by going to [www.nationalahec.org](http://www.nationalahec.org) and finding the link for the region of interest. Great possibilities await those who seek out AHEC!



## r2p: Research To Practice

Research to Practice (r2p) is a new NIOSH initiative. The goal of r2p is to reduce illness and injury by increasing workplace use of effective NIOSH and NIOSH-funded research findings. In order to achieve this, NIOSH is continuing to work with our partners to focus research on ways to develop effective products, translate research findings into practice, target dissemination efforts, and evaluate and demonstrate the effectiveness of these efforts in improving worker health and safety.



Agricultural Research Center Initiative Centers funded as of October 1, 2001

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 590 Woody Hays Drive  
 Columbus, OH 43210  
 (614) 292-9455  
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Great Plains Center for Agricultural Health  
 100 Oakdale Campus, #124 IREH  
 The University of Iowa  
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 (319) 335-4887  
 Center Director: Wayne Sanderson, PhD, CIH

High Plains Intermountain Center for Agricultural Health & Safety  
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 (970) 491-6151  
 Center Director: Steve Reynolds, PhD, CIH

National Children's Center for Rural and Agricultural Health and Safety  
 National Farm Medicine Center  
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 Marshfield, WI 54449  
 800-662-6900  
 Center Director: Barbara C. Lee, PhD

Northeast Center for Agricultural Safety & Health  
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 Center Director: John May, MD

Pacific Northwest Agricultural Safety & Health Center  
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 Center Director: Richard Fenske, PhD, MPH  
 (206) 685-8962

Southeast Center for Agricultural Health and Injury Prevention  
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 Center Director: Robert McKnight, MPH, ScD

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 West Research Bldg., 1157 VOA Site C Road  
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 Interior Center Director: John Sabella, Ed.D.

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 Center Director: Jeffrey L. Levin, MD, MSPH

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## "Steps to a Healthier US Workforce"

NIOSH and co-sponsors will convene a three-day Symposium to launch the new initiative. The aim is to integrate individual worker health and healthy lifestyle promotion with the NIOSH mission of protecting and improving working conditions and the work environment. This conference will bring together the health promotion and occupational safety and health communities in a combined effort to highlight common interests and develop mutually supportive strategies for research to practice. The symposium will be held at the Cafritz Center on the campus of George Washington University in Washington, DC on October 26-28, 2004. More information is available on the STEPS website <http://www.cdc.gov/niosh/steps/>

## LATEST CATCH HOT TOPICS



**Share the Findings**  
*Journal of Agromedicine: Practice, Policy and Research*, now indexed by the National Library of Medicine, seeks manuscripts that illuminate agricultural health and safety issues affecting the producer, consumer and environmental health of communities impacted

by agriculture. Visit <http://research.marshfieldclinic.org/nfmc/resources/agromedicine/> or contact editor Steve Kirkhorn, M.D., M.P.H., FACCME, [Agromedicine@mfdclin.edu](mailto:Agromedicine@mfdclin.edu) or <mailto:Agromedicine@mfdclin.edu>

## Save the Date

The 2005 biannual collaborative Western Center for Agricultural Health & Safety (WCAHS) conference has been scheduled for **September 7-9, 2005** on the beautiful conference grounds of Asilomar, Pacific Grove, CA (in close proximity to the famous Salinas Valley and its agricultural areas). The theme of the conference will be **Agricultural Health & Safety: Research to Practice**. More conference information will be available soon on the WCAHS website <http://agcenter.ucdavis.edu> or contact WCAHS 530-752-4050.

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